IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of Shehzard T. Merchant

Application Serial No. 10/773,394

Filed: February 6, 2004

Title: APPARATUS, METHOD AND SYSTEM FOR IMPROVING NETWORK SECURITY

Group Art Unit: 2109

Confirmation No.: 6341

Examiner: Supriya AHUJA

Attorney's Docket No. 02453.0020.NPUS00

Information Disclosure Statement

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Application No.: 10/773,394 Attorney Docket No.: 02453.0020.NPUS00

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been cited by or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

Applicants have checked the appropriate boxes below.

- □ 1. This Information Disclosure Statement is being filed;
 - □ a. Within three months of the U.S. filing date of a national application other than a continued prosecution application under §1.53(d);
 - □ b. Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
 - □c. Before the mailing date of a first Office Action on the merits;
 - □d. Before the mailing of a first Office Action after filing of a request for continued examination under § 1.115.

No statement under 37 C.F.R. § 1.97(e) or fee is required. or;

- 2. This Information Disclosure Statement is being filed after the period specified in paragraph 1(a)-1(d) above, but before the mailing date of a Final Rejection or Notice of Allowance, or action that otherwise closes prosecution in the application, and
 - □ a. I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1), or
 - □ b. I hereby state that no item of information in this Information

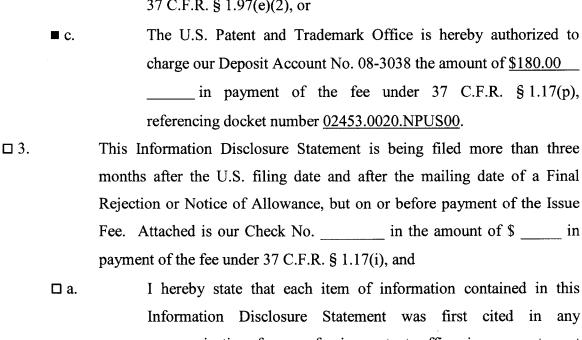
 Disclosure Statement was cited in a communication from a foreign

 patent office in a counterpart foreign application, and, to my

 knowledge after making reasonable inquiry, no item of information

Application No.: 10/773,394 Attorney Docket No.: 02453.0020.NPUS00

contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2), or



- Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1), or
- □ b. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- □ 4. Relevance of the non-English language document(s) is discussed in the present specification.

Application No.: 10/773,394 Attorney Docket No.: 02453.0020.NPUS00

The document(s) was/were cited in a corresponding foreign application. □ 5. An English language version of the foreign search report is attached for the Examiner's information. **□** 6. A concise explanation of the relevance of the non-English language document(s) appears below: □ 7. The Examiner's attention is directed to co-pending U.S. Patent Application No. ______ filed _____, which are directed to related technical subject matter. The identification of this U.S. Patent Application is not to be construed as a waiver of secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited application and the art cited therein during examination. Copies of all the documents marked with * listed in 1449 Form were cited □ 8. by or submitted to the Office in Application Nos. , filed _____, and _____, filed _____, which are relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d). It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 08-3038 referencing docket number 02453.0020.NPUS00. Respectfully submitted, Viola T. Kung, Ph.D. (Reg. No. 41,131) Date: July 13, 2007 HOWREY, LLP 2941 Fairview Park Drive, Box 7

HOWREY, LLP 2941 Fairview Park Drive, Box 7 Falls Church, VA 22042 Telephone: (650) 798-3570 Facsimile: (650) 798-3600

02453.0020.NPUS00

Approved for use through 03/31/2007. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Apt of 1995 no Persons are required to respond to a collection of information unless it contains a valid OMR control number

Complete if Known Substitute for form 1449A/PTO 10/773,394 Application Number INFORMATION DISCLOSURE Filing Date February 6, 2004 STATEMENT BY APPLICANT First Named Inventor Shehzad T. Merchant Art Unit 2109 AHUJA, Supriya **Examiner Name** (Use as many sheets as necessary)

2

1

Sheet

Attorney Docket Number

| U. S. PATENT DOCUMENTS | | | | | | |
|------------------------|--------------|---|--------------------------------|--|---|--|
| Examiner Initials* | Cite No.1 | Document Number Number-Kind Code ^{2 (if known)} | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | |
| | | US- 6137802 | 10-2000 | Jones et al. | | |
| | | US- 2004/0252837 | 12-2004 | Harvey et al. | | |
| | | US- 2003/0135762 | 07-2003 | Macaulay, Tyson | | |
| | | US- 7,181,530 | 02-2007 | Halasz et al. | | |
| | | US- 6,363,489 | 03-2002 | Comay et al. | | |
| | | US- 7,159,237 | 01-2007 | Schneier et al. | | |
| | | US- 2003/0033413 | 02-2003 | Willson et al. | | |
| | | US- 7,140,040 | 11-2006 | McBrearty et al. | | |
| | | US- 2002/0197978 | 12-2002 | Zavidniak, M. Paul | | |
| | | US- 6,687,833 | 02-2004 | Osborne et al. | | |
| | | US- 2002/0066034 | 05-2002 | Schlossberg et al. | | |
| | | US- 2003/0065934 | 04-2003 | Angelo et al. | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| L | | | | | | |
| I | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|--------------|---|--------------------------------|--|---|--|
| Examiner Initials* | Cite No.1 | Foreign Patent Document Country Code ³ "Number ⁴ "Kind Code ⁵ (<i>if known</i>) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| Examiner Signature | Date Considered | |
|-----------------------|--------------------|--|
| | | |

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.usplc.gov or MPEP 901.04. Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete,

Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Apt of 1995 no Persons are required to respond to a collection of information unless it contains a valid OMR control number.

| Substitute for form 1449B/PTO | | | | Complete if Known | | | |
|-----------------------------------|---------------|------|-----|------------------------|---------------------|--|--|
| | | | | Application Number | 10/773,394 | | |
| IN | FORMATION DIS | CLOS | URE | Filing Date | February 6, 2004 | | |
| STATEMENT BY APPLICANT | | | ANT | First Named Inventor | Shehzad T. Merchant | | |
| | (1) | | | Art Unit | 2109 | | |
| (Use as many sheets as necessary) | | | | Examiner Name | AHUJA, Supriya | | |
| Sheet | 2 | of | 2 | Attorney Docket Number | 02453.0020.NPUS00 | | |

| | | NON PATENT LITERATURE DOCUMENTS | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| Examiner Initials* | mode name of the adulor (in OA) TIAL LETTERO), title of the article (which appropriate), title of the item | | | | | | | | |
| Yongguang Zhang and Wenke Lee, "Intrusion Detection in Wireless Ad-Hoc Netwo ACM MOBICOM, 2000, pp. 275-283. | | | | | | | | | |
| | | Sonali Bhargave and Dharma Agrawal, "Security Enhancements in AODV protocol for Wireless Ad Hoc Networks," IEEE 2001, pp. 2143-2147 Nikita Borisov, Ian Goldberg, and David Wagner, "Intercepting Mobile Communications: The Insecurity of 802.11," 2001, pp. 1-13. | | | | | | | |
| | | | | | | | | | |
| W. Arbaugh, N. Shanker, Y.C. Justin Wan, "Your 802.11 Wireless Network has Clothes," 30 March 2001, pp 1-13. | | | | | | | | | |
| | | • | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | 1 | | | | | | | | |

| | | | |
|-----------|------------|---|------|
| | | | |
| Examiner | Date | İ | |
| Signature | Considered | | |

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.